

WHAT IS CLAIMED IS:

1. A moisture-curable, alkoxy silane-functional polyether urethane comprising

- 5 a) 20 to 90% by weight, based on the weight of a) and b), of a polyether urethane containing two or more reactive silane groups and one or more polyether segments, wherein the polyether segments have a number average molecular weight of at least 3000 and a degree of unsaturation of less than 0.04 milliequivalents/g, provided that the sum of the number average
- 10 molecular weights of all of the polyether segments per molecule averages 6000 to 20,000, and wherein the reactive silane groups are incorporated by the reaction of an isocyanate-reactive group with a compound corresponding to the formula

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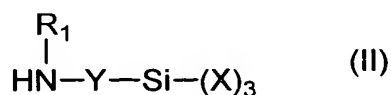
wherein

X represents identical or different organic groups which are inert to isocyanate groups below 100°C, provided that at least two of these groups are alkoxy or acyloxy groups and

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Y represents a linear or branched alkylene group containing 1 to 8 carbon atoms, and

- b) 10 to 80% by weight, based on the weight of a) and b), of a polyether urethane containing one reactive silane group and one or more polyether segments having a number average molecular weight of 1000 to 15,000, wherein the reactive silane groups are
- 30 incorporated by the reaction of an isocyanate group with a



compound corresponding to the formula

wherein

$R_1$  represents an organic group which is inert to isocyanate groups at a temperature of 100°C or less.

5        2.        The polyether urethane of Claim 1 wherein

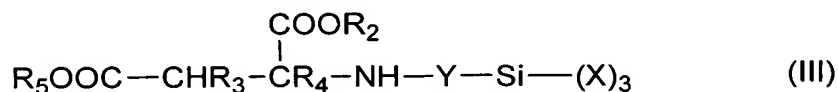
X represents identical or different alkoxy groups having 1 to 4 carbon atoms,

Y represents a linear radical containing 2 to 4 carbon atoms or a branched radical containing 5 to 6 carbon atoms and

10     $R_1$  represents an alkyl, cycloalkyl or aromatic group having 1 to 12 carbon atoms.

3.        The polyether urethane of Claim 1 wherein the reactive silane groups of component b) are incorporated as the reaction product of an isocyanate group and a compound corresponding to the formula

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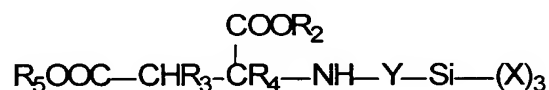


wherein

20         $R_2$  and  $R_5$  are identical or different and represent organic groups which are inert to isocyanate groups at a temperature of 100°C or less and

$R_3$  and  $R_4$  are identical or different and represent hydrogen or organic groups which are inert towards isocyanate groups at a temperature of 100°C or less.

25        4.        The polyether urethane of Claim 1 wherein the reactive silane groups of component b) are incorporated as the reaction product of an isocyanate group and a compound corresponding to the formula



## (III)

wherein

X represents identical or different alkyl or alkoxy groups having 1 to 4 carbon atoms,

5 Y represents a linear radical containing 2 to 4 carbon atoms or a branched radical containing 5 to 6 carbon atoms,

R<sub>2</sub> and R<sub>5</sub> are identical or different and represent alkyl groups having 1 to 4 carbon atoms and

R<sub>3</sub> and R<sub>4</sub> represent hydrogen.

10 5. The polyether urethane of Claim 1 wherein polyether urethane a) is present in an amount of 30 to 80% by weight and polyether urethane b) is present in an amount of 20 to 70% by weight, wherein the percentages are based on the weight of a) and b).

6. The polyether urethane of Claim 2 wherein polyether  
15 urethane a) is present in an amount of 30 to 80% by weight and polyether urethane b) is present in an amount of 20 to 70% by weight, wherein the percentages are based on the weight of a) and b).

7. The polyether urethane of Claim 3 wherein polyether  
20 urethane a) is present in an amount of 30 to 80% by weight and polyether urethane b) is present in an amount of 20 to 70% by weight, wherein the percentages are based on the weight of a) and b).

8. The polyether urethane of Claim 4 wherein polyether  
25 urethane a) is present in an amount of 30 to 80% by weight and polyether urethane b) is present in an amount of 20 to 70% by weight, wherein the percentages are based on the weight of a) and b).

9. The polyether urethane of Claim 1 wherein the polyether segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

30 10. The polyether urethane of Claim 2 wherein the polyether

segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

11. The polyether urethane of Claim 3 wherein the polyether  
5 segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

12. The polyether urethane of Claim 4 wherein the polyether  
10 segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

13. The polyether urethane of Claim 5 wherein the polyether  
15 segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

14. The polyether urethane of Claim 6 wherein the polyether  
segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

20 15. The polyether urethane of Claim 7 wherein the polyether segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

16. The polyether urethane of Claim 8 wherein the polyether  
25 segments of polyether urethane a) have a number average molecular weight of at least 6000 and the polyether segments of component b) have a number average molecular weight of 3000 to 12,000.

17. A sealant, adhesive or coating composition containing the moisture-curable, alkoxysilane-functional polyether urethane of Claim 1.